

# ***“Are the off – grid customers ready to pay for electricity from the decentralized renewable hybrid mini – grids? A study of willingness to pay in rural Bangladesh”***

*A paper review in the viewpoint of Probability and Statistics*

**Ivan John Naparota**

**ivanjohnnaparota66@gmail.com**

**09482243320**

To answer the objective of this research which is to know if the people in a rural area in Bangladesh are willing to pay for a decentralized hybrid minigrid, the researcher used different methods, he used contingent valuation method (CVM) to explore the people's willingness to pay while having an open conversation on the possible pricing of the proposed project, this will tell the researcher how much are the people willing to bid in exchange for the service, the bidding will be made considering four determinants which are *reliable supply, no health hazard, income potential, and cost saving*, this is for the validity and reliability of CVM. He also made a model with logistics regression and multiple regression having dependent variable as the people's willingness to pay and the independent variables were initial bid, age group, gender, income level, income frequencies, household size, electrification status, and expected load demand, for these are believed to have influences on their own way to the people's willingness to pay a desired amount.

But to get the necessary data, the researcher made a face to face interview with the included households, he prepared a survey instrument in the form of a questionnaire that contains the appropriate questions. To have a reliable output, he used 100 sample households out of the entire population for each of the three areas, and to maintain the randomness of the population, he used a random number generator application. The data gathered were then treated and analysed with the tools mentioned in the first paragraph.

The tools used were very useful in finding out the paper's final result, the CVM will give the readers of this paper a clear view on how a community will react to a noble project like this, it reflects in the CVM table that if only the people will know the real reason why projects like renewable energy sources are made (the four determinants will tell you this), the community as a whole are more than willing to bid an appropriate amount that could result into a “win - win” situation for both consumer and seller. Added to that, the regression analysis gives a numerical result on how much are the people willing to pay in return for the service they will receive, having clean figures like this will benefit the investor(s) for his decision making whether to proceed or cancel the proposed project.